

Title (en)

ELECTRONIC DEVICE AND OPERATION METHOD THEREOF

Title (de)

ELEKTRONISCHE VORRICHTUNG UND BETRIEBSVERFAHREN DAFÜR

Title (fr)

DISPOSITIF ÉLECTRONIQUE ET PROCÉDÉ DE FONCTIONNEMENT ASSOCIÉ

Publication

**EP 4382989 A1 20240612 (EN)**

Application

**EP 22867512 A 20220621**

Priority

- KR 20210121182 A 20210910
- KR 2022008763 W 20220621

Abstract (en)

Provided is an electronic device including an optical engine including a projection lens configured to project light of a virtual image, a waveguide including an input grating on which the light of the virtual image is incident, an actuator configured to adjust a position of the projection lens relative to an optical axis of the projection lens, a light sensor configured to detect light passing through the input grating, a memory configured to store one or more instructions, and a processor configured to execute the one or more instructions to obtain a degree of parallelism of the light detected by the light sensor, obtain, based on the degree of parallelism of the light, a position adjustment value of the projection lens to detect light, and control the actuator to adjust a distance between the projection lens and the waveguide based on the position adjustment value.

IPC 8 full level

**G02B 27/01** (2006.01)

CPC (source: EP US)

**G01J 1/0448** (2013.01 - US); **G01J 1/4228** (2013.01 - EP US); **G02B 26/0875** (2013.01 - EP US); **G02B 27/01** (2013.01 - EP);  
**G02B 27/0172** (2013.01 - EP US); **G01J 1/0266** (2013.01 - EP); **G02B 2027/0138** (2013.01 - EP US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**US 2023085129 A1 20230316**; EP 4382989 A1 20240612

DOCDB simple family (application)

**US 202217877413 A 20220729**; EP 22867512 A 20220621